

20001006.ba v03\_n002.bam.20001006

>From ???@??? Fri Oct 6 18:00:58 2000 -0500  
Date: Fri, 6 Oct 2000 17:58:37 CDT  
From: Old Tube Radios <boatanchors@theporch.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: BOATANCHORS digest 3002  
Message-Id: <20001006230259.A0BA92DD@devel143.theporch.com>

## BOATANCHORS Digest 3002

Topics covered in this issue include:

- 1) Re: GB> Hmmmmm....  
by "Nick England" <nick@3rdtech.com>
- 2) Re: Replacement transistor in CU-5069 multicoupler  
by "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>
- 3) Tool Box Needed  
by Roy Morgan <roy.morgan@nist.gov>
- 4) Re: Hum modulation of HF local oscillators.  
by "Joseph J. Curry" <jjcurry\_trilix@compuserve.com>
- 5) GB> HMMMM....  
by JOHN.SEHRING@ecunet.org
- 6) Re: [BoatAnchors] 866A or 3B28...???  
by "Sandy Blaize" <ebjr@i-55.com>
- 7) Little Black screws for 75A4  
by Robert Kemp <rkemp@mr.net>
- 8) Re: Wrapping Power Tubes??wq  
by William Donzelli <aw288@osfn.org>
- 9) D104's and G stands--> whither serial numbers?  
by john <johnmb@mindspring.com>
- 10) Re: D104's and G stands--> whither serial numbers?  
by "John Dilks, K2TQN" <oldradio@worldnet.att.net>
- 11) Johnson Desk KW desk  
by brian.k.harris@philips.com
- 12) Re: Johnson Desk KW desk  
by jackiv@juno.com
- 13) Re: Wrapping Power Tubes??wq  
by jackiv@juno.com
- 14) Re: Wrapping Power Tubes??wq  
by Dan <hankarn@pacbell.net>
- 15) Re: Johnson Desk KW desk  
by polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)
- 16) 4" Feed Thru Insulators  
by David Jordan <wa3gin@erols.com>
- 17) SX-100 Kobs needed....(8-/  
by Daniel Wright <dw73454@navix.net>
- 18) FS: Collins R-390A

by KB9VU@aol.com  
19) FS: BC 624 rcvr, p/o SCR 522  
by Paul Thekan <Paul.Thekan@eimac.cpii.com>  
20) FS: SB-614, SP-600, DX-100  
by brian.k.harris@philips.com  
21) GB> HMMMM....  
by JOHN.SEHRING@ecunet.org  
22) Hummmmm  
by "Nick England" <nick@3rdtech.com>  
23) No luck from Astatic  
by john <johnmb@mindspring.com>  
24) Re: Hummmmm  
by "A. B. Bonds" <ab@vuse.vanderbilt.edu>  
25) Re: GB> HMMMM....  
by "Richard Brunner" <rbrunner@gis.net>

-----  
Message-ID: <003201c02efc\$3f570e00\$fd0212ac@heathkit>

From: "Nick England" <nick@3rdtech.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: GB> Hmmmmmm....

Date: Thu, 5 Oct 2000 14:44:09 -0400

MIME-Version: 1.0

Content-Type: text/plain;  
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

I think I had one just like this - try this experiment:

- Disconnect The Clock!!!

As I remember, the BFO coil is located right behind the clock coil -I think later model 110-C's had a mu-metal shield installed.

73 & Have Fun,

Nick KD4CPL <nick@3rdtech.com>

<http://www.3rdtech.com/nick/hobbies.html>

>

> > Another Q for the group.

> >

> > My HQ-110-C is quiet as a graveyard on either AM or CW with no

> > signal.

> >

> > CW signals are hum-modulated. Substituted a new BFO/OSC tube.

> > Still have it. Sounds like a cathode to grid or to filament leak to me,  
> but

> > can't find it.

> >

> > Ideas?  
> >  
> > Ken W7EKB  
> >  
>

-----  
Message-Id: <3.0.1.32.20001005144136.006b17ac@miavx1.muohio.edu>  
Date: Thu, 05 Oct 2000 14:41:36 -0400  
To: Old Tube Radios <boatanchors@theporch.com>  
From: "James C. Garland" <4cx250b@miavx1.acs.muohio.edu>  
Subject: Re: Replacement transistor in CU-5069 multicoupler  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

At 08:28 AM 10/5/00 -0400, you wrote:

>Jim, Don, and the Group,

>

> I respectfully wish to differ with Jim's suggestion. The  
>2N5160 is a PNP 5-Watt RF power transistor with a  
>transistion frequency (F sub T) of 500Mhz minimum.  
>Replacing it with a low frequency device will almost surely  
>degrade the LINEARITY of the system resulting in (possibly  
>subtle)intermodulation problems. What to do?

>

>Al Klase - N3FRQ

Hi Al and the Gang,

I stand corrected! I was getting my info from my NTE database, which showed the 2N5160 to be a PNP AF amplifier output transistor, and from my Sencore transistor reference book, which indicates that it has a minimum beta of only ten. I should have looked up the detailed specs. In any case, I swapped mine for a 2N2905, which has a minimum beta of 100 and a leakage (Icbo) about 1% that of the 2N5160. I notice no difference in performance, though I haven't checked the detailed noise performance. Sorry if I mislead anyone.

73,

Jim Garland W8ZR

-----  
Message-Id: <4.3.2.7.2.20001005162018.00d37140@sdct-sunsv1.ncsl.nist.gov>  
Date: Thu, 05 Oct 2000 16:21:47 -0400  
To: Old Tube Radios <boatanchors@theporch.com>  
From: Roy Morgan <roy.morgan@nist.gov>  
Subject: Tool Box Needed  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 12:57 PM 10/5/00 -0500, you wrote:

>I need a new tool box. My faithful brown Kennedy box has served well over  
>many years. But it's too small. ..something along the lines of the tool  
>boxes TV and radio service people carried when they made house calls.

Dick,

I'll trade one of my tube caddies for your Kennedy tool box.  
Some tubes included..  
hehehe

Roy  
-Keep em glowing!  
Roy Morgan, K1LKY since 1959  
7130 Panorama Drive  
Derwood MD 20855  
301-330-8828  
roy.morgan@nist.gov

-----  
Date: Thu, 5 Oct 2000 16:23:50 -0400  
From: "Joseph J. Curry" <jjcurry\_trilix@compuserve.com>  
Subject: Re: Hum modulation of HF local oscillators.  
To: Old Tube Radios <boatanchors@theporch.com>  
Message-ID: <200010051623\_MC2-B5E0-29BC@compuserve.com>  
MIME-Version: 1.0  
Content-Transfer-Encoding: quoted-printable  
Content-Type: text/plain;  
charset=ISO-8859-1  
Content-Disposition: inline

I have seen this happen in several of my receivers. The common element: a=ll  
used a 6C4 as the oscillator tube. Since the HQ180 is basically a general=coverage HQ170, I would assume it has a 6C4 oscillator.

These tubes seem to be particularly prone to heater cathode leakage.  
Replace the 6C4 with a new one and the problem should disappear. It will  
however, reappear as the tube ages and the leakage current increases. =

Hope this is helpful.

73,

Joe  
K3ICO  
AMI #721

-----  
Date: Thu, 5 Oct 2000 16:49:39 -0400 (EDT)  
Message-Id: <200010052049.e95Kndw07305@ecunet.org>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: GB> HMMMM....  
From: JOHN.SEHRING@ecunet.org

Halli did not go to DC on fils of HF oscillator (12BY7) on the SX-101A but instead ran the fils 24 hours a day using a separate fil xfmr. The -101A was the first in the line to have this feature, e.g. the -101 did not.

Frill: they put about 27 VDC (regulated) onto the center tap of the fil xfmr secondary to put the osc fil at 27 VDC above ground, fil floats.

Bias gotten via series resistors of 100K & 22K run from 150 VDC reg'd to ground, fil CT tapped at junction of resistors (22k closest to gnd).

Fil voltage applied via \*single\* 2.2 uH (1.1 ohm DC resistance) choke in one fil lead only, .02 disc cap from each fil pin to ground.

Worked well except I still noted very, very slight AC hum sometimes, only on 15 m (not on higher freqs) carriers w/BFO on. Seem to recall that some tubes hummed a bit more than others.

Also, -101A had 4 Watt continuously running heating resistor located under HF osc area.

I run 6.3 VDC reg'd via zener diode on my Halli SX-100, runs continuously. Haven't tried the 27 VDC on fils, probably not needed here. Also use heater resistor under HF osc.

-John Sehring (Thu, Oct 5, 2000, Ipswich SD) UCC WB0EQ

-----  
Message-Id: <200010052134.QAA28368@exit1.i-55.com>  
From: "Sandy Blaize" <ebjr@i-55.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: [BoatAnchors] 866A or 3B28...???  
Date: Thu, 5 Oct 2000 14:21:29 -0500  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit

> Back in 1962 I built a 4x811A linear that had 866's in the power  
> supply. It really was noisy but worse.. the tubes kept crapping out. I  
> switched to some 3B28's that were in some old radar cabinets that I had  
> acquired and they are still in service (and quiet).

One of the biggest troubles with 866A's and other MV rectifiers is inadequate warm-up time. If the tubes are pulled out and laid on their sides, or when initially placed in service, should be run with filament voltage only for at least 10-15 minutes!! Subsequent warm-up time should be at least 1-1.5 minutes. Failure to do this will shorten the life of the tubes. If properly cared for, the 866A's should last quite a long time. The 3B28's require no such "seasoning period" and long warmup time, so were popular. Some rigs made no provision for delaying the application of high voltage until the delay time was acheived. When I was with Mackay Radio, most of the Mackay shipboard transmitters had 866A's, a few had 872A's. It was VERY rare to encounter a bad tube as Mackay made provision with delay relays to prevent the application of HV until the warmup time was completed.

73,  
Sandy W5TVW

-----  
Message-ID: <39DCFCEC.A7A95FF0@mr.net>  
Date: Thu, 05 Oct 2000 17:13:00 -0500  
From: Robert Kemp <rkemp@mr.net>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Little Black screws for 75A4  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I'm looking for the little black screws for a 75A4 - to attach the bottom cover to the chasis! Any idea where to get these....

Also, anyone know where to get the front grill for a 516F-2 supply???

Ran across a F455J23 (not a 21)....never saw one or had one before for a 75A4!

Is this an oddity??  
Bob

-----  
Date: Thu, 5 Oct 2000 18:21:16 -0400 (EDT)  
From: William Donzelli <aw288@osfn.org>  
To: Old Tube Radios <boatanchors@theporch.com>

cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Wrapping Power Tubes??wq  
Message-ID: <Pine.SUN.3.91-FP.1001005181812.11892C-1000000@osfn.org>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

> Do any of you ladies/gents know what the heck that stuff  
> is that was used to wrap and protect larger tubes back in  
> the good old days? This material has a brown paper backing  
> and a substantial thickness of brown spongy paper-like material  
> attached to it. It's just what you need to absorb the brutal  
> jolts the USPS applies to those delicate firebottles inside  
> a package.

The puffy stuff is called Excelsior. I don't think it is available anymore. For real tube protection, get a bundle of that synthetic quilt stuffing "cotton" available in fabric stores. It is cheap and incredibly lightweight. I have had very fragile tubes shipped in big boxes with bunches of this stuff as a "cloud". No breaks!

William Donzelli  
aw288@osfn.org

-----  
Message-Id: <3.0.3.32.20001005193533.00db42b4@mindspring.com>  
Date: Thu, 05 Oct 2000 19:35:33 -0400  
To: Old Tube Radios <boatanchors@theporch.com>  
From: john <johnmb@mindspring.com>  
Subject: D104's and G stands--> whither serial numbers?  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Just cleaning up an old, filthy D104 that I got with a piece of gear and noticed that both it, and the G stand are serial numbered. A quick tour of the others around here showed none of them so marked.

Anyone know when Astatic discontinued the metal tag with individual s/n's for each piece?

John  
PS: It still worked fine!  
-----  
John Brewer - WB50AU/4  
AMI #24  
Clayton NC  
johnmb@mindspring.com  
-----

-----  
Message-Id: <4.3.2.7.0.20001005193836.00aea2a0@postoffice.worldnet.att.net>  
Date: Thu, 05 Oct 2000 19:44:05 -0400  
To: Old Tube Radios <boatanchors@theporch.com>  
From: "John Dilks, K2TQN" <oldradio@worldnet.att.net>  
Subject: Re: D104's and G stands--> whither serial numbers?  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 07:35 PM 10/5/2000 -0400, john wrote:

>Just cleaning up an old, filthy D104 that I got with a piece of gear  
>and noticed that both it, and the G stand are serial numbered. A quick  
>tour of the others around here showed none of them so marked.

>

>Anyone know when Astatic discontinued the metal tag with individual  
>s/n's for each piece?

>

>John

>PS: It still worked fine!

Hi John,

Some years ago Astatic had a contest to find the oldest serial #  
D-104. Someone won a new "special" D-104, but I forget the  
particulars. Anyway, Astatic should still have the information (If they  
are still in business.) You might find the winner in an old QST Astatic  
advertisement. My guess for the contest was the early 1960's. I think  
they had a printout of the numbers by years at one time.???

I think the CB craze was the end of serial numbers.

73' John, K2TQN

-----  
From: brian.k.harris@philips.com  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Johnson Desk KW desk  
Message-ID: <00569100077867920000002L122\*@MHS>  
Date: Thu, 5 Oct 2000 19:02:37 -0500  
MIME-Version: 1.0  
Content-Type: text/plain; charset=iso-8859-1; name="MEMO 10/05/00 19:00:07"  
Content-Transfer-Encoding: quoted-printable  
Content-Disposition: inline

Would one of you lucky Desk KW owners that actually have a desk for you=  
r Desk KW please tell me the name of the manufacturer of the desk? I b=  
elieve it is stamped on a shiny metal label on the center drawer face. =  
If it's a Steel Age desk by the=20



Corry-Jamestown Manufacturing Corporation of Corry, PA, I found a desk = that can be modified to work with my desk-less pedestal. Thanks for yo= ur help.

Brian Harris WA5UEK

=

-----  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: boatanchors@theporch.com  
Date: Thu, 5 Oct 2000 19:42:17 -0500  
Subject: Re: Johnson Desk KW desk  
Message-ID: <20001005.194539.-519565.11.jackiv@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
From: jackiv@juno.com

I think that you will find it is a Steel Case unit. Look for pieces in used office furniture stores, the tops can be replaced quite easily.

On Thu, 5 Oct 2000 19:02:37 -0500 brian.k.harris@philips.com writes:

> Would one of you lucky Desk KW owners that actually have a desk for  
> your Desk KW please tell me the name of the manufacturer of the  
> desk? I believe it is stamped on a shiny metal label on the center  
> drawer face. If it's a Steel Age desk by the  
> Corry-Jamestown Manufacturing Corporation of Corry, PA, I found a  
> desk that can be modified to work with my desk-less pedestal.  
> Thanks for your help.

>

> Brian Harris WA5UEK

>

>

-----  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: boatanchors@theporch.com  
Date: Thu, 5 Oct 2000 19:22:30 -0500  
Subject: Re: Wrapping Power Tubes??wq  
Message-ID: <20001005.194539.-519565.10.jackiv@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit  
From: jackiv@juno.com

I should know that you would have the ultimate answer William. How about using The good old USPS?

your comments are appreciated. Thanks.

btw, excelsior was the shredded wood stuff, very resilient . the brown

fuzzy stuff mat have been called that also.  
jack

On Thu, 5 Oct 2000 18:21:16 -0400 (EDT) William Donzelli <aw288@osfn.org> writes:

> > Do any of you ladies/gents know what the heck that stuff  
> > is that was used to wrap and protect larger tubes back in  
> > the good old days? This material has a brown paper backing  
> > and a substantial thickness of brown spongy paper-like material  
> > attached to it. It's just what you need to absorb the brutal  
> > jolts the USPS applies to those delicate firebottles inside  
> > a package.  
>  
> The puffy stuff is called Excelsior. I don't think it is available  
> anymore. For real tube protection, get a bundle of that synthetic  
> quilt  
> stuffing "cotton" available in fabric stores. It is cheap and  
> incredibly  
> lightweight. I have had very fragile tubes shipped in big boxes with  
>  
> bunches of this stuff as a "cloud". No breaks!  
>  
> William Donzelli  
> aw288@osfn.org  
>  
>

-----  
Date: Thu, 05 Oct 2000 17:49:39 -0700  
From: Dan <hankarn@pacbell.net>  
Subject: Re: Wrapping Power Tubes??wq  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Message-id: <39DD21A3.FD8146F0@pacbell.net>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-transfer-encoding: 7bit

I stock excelsior all of the time. It is made from wood shavings comes  
in 50 pound bales.  
raft stores and fabric stores carry the fluff.  
Hank

-----  
Date: Fri, 6 Oct 2000 04:56:34 -0400  
From: polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)  
Message-Id: <200010060856.EAA16594@aa4rm.ba-watch.org.>  
To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: Johnson Desk KW desk

Mine's a Steel Case, OK & I dunno the model #. I had the dim's & just kept throwing a tape on curb-side discards 'til one appeared.

Sri can't be more specific

I'm NOT typing this from atop 2 4-250s / 2 810s.

Marty

-----  
Message-ID: <39DDD5DF.C481B878@erols.com>  
Date: Fri, 06 Oct 2000 09:38:39 -0400  
From: David Jordan <wa3gin@erols.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: 4" Feed Thru Insulators  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi Folks,

Looking for three pairs of feedthru insulators for my open wire projects.

Don't want to go to Nebraska Sales or Fair Radio.

thanks,  
dave  
WA3GIN

-----  
Message-Id: <3.0.6.16.20001006094030.0e678d1c@mail.navix.net>  
Date: Fri, 06 Oct 2000 09:40:30 -0500  
To: Old Tube Radios <boatanchors@theporch.com>  
From: Daniel Wright <dw73454@navix.net>  
Subject: SX-100 Kobs needed....(8-/  
Mime-Version: 1.0  
Content-Type: text/plain; charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

Greetings!

I am looking for some knobs for the SX-100 (yeah, I know..but I thought I'd ask anyway!)....

I need three:

Response

Pitch control

Notch Depth

If ya have em or know where I could get em, I'd be grateful.

What happens to all those knobs that are missing from various old radios is beyond me....(8-<.

Thanks a bunch es

73 de Dan -- WA=D8JRD ..  
Lincoln, Nebraska

-----  
From: KB9VU@aol.com  
Message-ID: <ca.b0d9b53.270f59c7@aol.com>  
Date: Fri, 6 Oct 2000 12:37:27 EDT  
Subject: FS: Collins R-390A  
To: Old Tube Radios <boatanchors@theporch.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"  
Content-Transfer-Encoding: 7bit

Sale fell through so I am listing the receiver again.

Collins manufactured, U.S. Army Signal Corps order number 14216-PH-51, R-390A receiver. Serial number is 716. Mounted in a NOS CY-979A/URR cabinet and includes manuals (Copies). Radio is in good condition and works on all bands. Has a NON PERMANENT, audio mod installed that also replaces the ballast tube (full schematics for this circuit are included). Panel is painted St. James gray and is in good condition with scratches around the rack mount holes and the panel edges. Meters installed. All knobs are there and original with minor wear on the two large knobs. Includes top and bottom covers (not installed) and the internal slug rack cover. Cabinet is NOS painted light gray with screens, shock mounts and U channel installed.

Due to the size and weight, I do not want to ship the radio. Pick up near St. Louis, MO or would drive a reasonable distance to exchange.

Radio, top/bottom covers, manuals and cabinet \$675 Firm. Radio, top/bottom covers and manuals, without the cabinet: \$450 Firm.

Mike, KB9VU  
kb9vu@aol.com

-----  
Message-Id: <4.2.0.58.20001006094643.00bbce20@pop3.eimac.cpii.com>  
Date: Fri, 06 Oct 2000 09:51:46 -0700  
To: Old Tube Radios <boatanchors@theporch.com>  
From: Paul Thekan <Paul.Thekan@eimac.cpii.com>  
Subject: FS: BC 624 rcvr, p/o SCR 522  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

I have some like new BC 624 receivers complete with with tubes. Freq. range 100 -150 mcs. Asking \$ 20 ea plus shipping.

Thank you  
Paul

-----  
From: brian.k.harris@philips.com  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: FS: SB-614, SP-600, DX-100  
Message-ID: <00569100078066110000002L112\*@MHS>  
Date: Fri, 6 Oct 2000 13:43:46 -0500  
MIME-Version: 1.0  
Content-Type: text/plain; charset=iso-8859-1; name="MEMO 10/06/00 13:41:23"  
Content-Transfer-Encoding: quoted-printable  
Content-Disposition: inline

The following items are going to the Belton hamfest with me. If you are interested in any of these items, please send an email to me ASAP. If I get your email before I leave in 1.5 hours (at 3:00P CDST), I won't sell whatever it is your interested in=20 at Belton. If I don't get your email before I leave and if I don't sell whatever it is you want while I am at Belton, then it will come back = with me and I'll reply to your email on Monday. All prices are plus shipping from 75081 (Richardson, Texas).

SB-614 Monitor Scope - perfect cosmetic and electrical condition - \$125=

SP600-JX17 - good cosmetics - working but not recapped nor recently aligned - comes w/cabinet and handles - \$350

DX-100 - normal cabinet scuffing - very good front panel - incorrect, but matching, driver/plate tuning knobs and drive/loading knobs (the red ones) - slightly high fidelity audio mods - works very well (as lots of Texans will attest to) - \$200.

You can see these at Belton this evening or tomorrow (Saturday).

73,=20

Brian K. Harris WA5UEK  
Senior Field Application Engineer

Philips Semiconductors               =20  
2140 Lake Park Blvd. Suite 200  
Richardson, Texas 75080 USA       =20  
Direct 972-705-2484  
Main    972-644-1610  
Fax      972-480-9617  
Cell     214-763-3933  
EMAIL brian.k.harris@philips.com  
=

-----  
Date: Fri, 6 Oct 2000 17:12:15 -0400 (EDT)  
Message-Id: <200010062112.e96LCFk06829@ecunet.org>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: GB> HMMMM....  
From: JOHN.SEHRING@ecunet.org

To: boatanchors@theporch.com

> DC heater is best.

Yes.

> However, the idea of raising the heater a few tens of volts above ground  
> is to cut off the grid with respect to the grid; therefore you want to  
> consult the tube manual to make sure you use enough voltage to do that  
> for the tube in question. For a 6C4 that's about 25 volts.

We are talking fil vs. cathode rather than cathode vs. grid, so the numbers  
would be quite different, right?

I think we are talking about hum modulation of the electron stream winding  
up on the cathode in the form of cathode bias of 60 Hz AC. Somehow, the  
positive fil bias reduces or eliminates this.

On the Halli SX-101A, the the cathode of the 12BY7 HF oscillator runs about  
+1.2 VDC and +22 VDC of bias is put onto the fil.

-John Sehring (Fri, Oct 6, 2000, Ipswich SD) UCC WB0EQ

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Message-ID: <036c01c02fdc\$f740e5f0\$fd0212ac@heathkit>  
From: "Nick England" <nick@3rdtech.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Hummmmm  
Date: Fri, 6 Oct 2000 17:32:44 -0400  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Shoot, I thought someone would comment on the interaction between BFO coil and clock motor in the HQ-110C. I drove myself crazy trying different tubes, DC on filaments, etc. before figuring this out.

I realize this isn't a very typical problem (did anyone besides Hammarlund make a ham band clock radio?), but I thought it was interesting. Has anyone ever seen anything like this from power transformers, etc.?

73 & Have Fun,

Nick KD4CPL <nick@3rdtech.com>

<http://www.3rdtech.com/nick/hobbies.html>

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Message-Id: <3.0.3.32.20001006174729.00df7180@mindspring.com>  
Date: Fri, 06 Oct 2000 17:47:29 -0400  
To: Old Tube Radios <boatanchors@theporch.com>  
From: john <johnmb@mindspring.com>  
Subject: No luck from Astatic  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Boatfolk,

I wrote yesterday regarding the approximate date the Astatic discontinued serializing their stands and D104 heads, and someone suggested I write Astatic (good idea!).

Good idea but no go. Here's the answer:

"John

Astatic was sold to a new owner several yeas ago. The new company is known as CTI Audio. Unfortunately some information like this was not kept track of. I would probably say though it would have been 25 to 30 years ago. You might find someone on the web that can give you a more exact answer.

There is still a lot of radio people out there."

Good to know that there's still some of us out here! By the way, from the looks of their web page, the new 104's can be had with a fine assortment

of roger beeps and other necessities of "radio people".

BAH!!!!!!!!!!

John

-----=  
John Brewer - WB50AU/4  
AMI #24  
Clayton NC  
johnmb@mindspring.com  
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-----  
Message-Id: <3.0.1.32.20001006170534.0102ae40@vuse.vanderbilt.edu>  
Date: Fri, 06 Oct 2000 17:05:34 -0500  
To: Old Tube Radios <boatanchors@theporch.com>  
From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>  
Subject: Re: Hummmmm  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

At 05:32 PM 10/6/2000 -0400, you wrote:

>>I realize this isn't a very typical problem (did anyone besides Hammarlund  
>make a ham band clock radio?), but I thought it was interesting. Has anyone  
>ever seen anything like this from power transformers, etc.?

Absotively. The HQ-120 and HQ-129 often have substantial speaker hum that  
must arise from solid-state devices, because it it "instant-on". Go look  
at the layout....

73           A. B. Bonds

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Message-ID: <007401c02fe7\$895e8dc0\$a44929d8@tneltcds>  
From: "Richard Brunner" <rbrunner@gis.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: GB> HMMMM....  
Date: Fri, 6 Oct 2000 18:39:43 -0400  
MIME-Version: 1.0  
Content-Type: text/plain;  
          charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

" However, the idea of raising the heater a few tens of volts above ground  
is to cut off the grid with respect to the grid; therefore you want to  
consult the tube manual to make sure you use enough voltage to do that



for the tube in question. For a 6C4 that's about 25 volts.

We are talking fil vs. cathode rather than cathode vs. grid, so the numbers would be quite different, right?

I think we are talking about hum modulation of the electron stream winding up on the cathode in the form of cathode bias of 60 Hz AC. Somehow, the positive fil bias reduces or eliminates this."

Answer: This has nothing to do with the grid. We are talking about possible emission from the heater to the cathode, probably at the ends. This is an unintentional diode, and when the heater is positive with respect to the cathode, (acting as the plate) no electron current can flow. The heater has to be "+" above the cathode bias voltage to block current flow.

Another possibility is resistive leakage from heater to cathode. According to the Radiotron Designers Handbook there may be an optimum bias voltage to minimize that too.

Another possibility is emission from the cathode emitting surface to the heater. (This sounds rare.) To cure this, the heater would have to be negative with respect to the cathode.

Another thought; the electron stream past the grid of a high-gain tube CAN be modulated by an external magnetic field, as from the power transformer, introducing hum. If the transformer was designed for 110-115 volts, and is operated on 120-125 volts, the stray magnetic field can increase exponentially. So many possibilities, so much fun.

Richard Brunner, AA1P, rbrunner@gis.net

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End of BOATANCHORS Digest 3002

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